

CLAIMS:

1. A method for inserting replacement commercials (7-10) into a data stream (100), the data stream having program (A, B, C) and commercial portions (1, 2), the method comprising:

detecting one or more of the commercial portions of the data stream; and
replacing the detected one or more commercial portions with either more or less of the replacement commercial portions.

2. The method of claim 1, further comprising storing the commercial portions in the data stream subsequent to the detecting.

3. The method of claim 2, wherein the replacing comprises selecting the replacement commercial portions from at least one of the stored commercial portions from the data stream and other commercial portions from an external source (422).

4. The method of claim 3, further comprising storing the other commercial portions from the external source.

5. The method of claim 1, further comprising detecting one or more of the program portions of the data stream and storing the one or more detected program portions.

6. The method of claim 1, wherein the replacing comprises indicating one or more preferences of a user.

7. The method of claim 6, wherein the indicating is a manual indication by the user.

8. The method of claim 6, wherein the indicating is an automatic indication from a recommendation system that forms a user profile, the user profile indicating viewing preferences of the user.

9. The method of claim 6, wherein the one or more preferences of the user are selected from a group consisting of preferred replacement commercial portions, a preferred frequency of the replacement commercial portions, and a preferred length of the replacement commercial portions.

10. The method of claim 1, further comprising outputting an output data stream (400) having the program portions and the replacement commercial portions.

11. The method of claim 10, wherein the replacement commercial portions are more than the detected commercial portions, the method further comprising dividing at least one of the program portions into sub-portions (A₁, A₂, B₁, B₂) having at least one of the replacement commercial portions therebetween.

12. The method of claim 10, wherein the replacement commercial portions are less than the detected commercial portions, the method further comprising combining at least two of the program portions into a larger program portion.

13. A device (401) for inserting replacement commercials (7-10) into a data stream (100), the data stream having program (A, B, C) and commercial portions (1, 2), the device comprising:

a detector device (416) for detecting one or more of the commercial portions of the data stream; and

a scheduler device (426) for replacing the detected one or more commercial portions with either more or less of the replacement commercial portions.

14. The device of claim 13, further comprising a memory (418) for storing the commercial portions in the data stream subsequent to the detecting.

15. The device of claim 13, further comprising a memory (418) for storing other commercial portions from an external source (422).

16. The device of claim 13, wherein the detector further detects one or more of the program portions from the data stream wherein the device further comprises a memory (424) for storing the one or more detected program portions.

17. The device of claim 13, further comprising a first tuner (414) operatively connected to the detector for receiving the data stream.

18. The device of claim 15, further comprising a second tuner (420) operatively connected to the detector for receiving a second data stream having the other commercial portions.

19. The device of claim 13, wherein the data stream is a broadcast video data stream.

20. The device of claim 13, wherein the data stream is a streaming video data stream.

21. The device of claim 13, wherein the data stream is an audio data stream.

22. A computer program product embodied in a computer-readable medium for inserting replacement commercials (7-10) into a data stream (100), the data stream having program (A, B, C) and commercial portions (1, 2), the computer program product comprising:

computer readable program code means for detecting one or more of the commercial portions of the data stream; and

computer readable program code means for replacing the detected one or more commercial portions with either more or less of the replacement commercial portions.

23. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for inserting replacement commercials (7-10) into a data stream (100), the data stream having program (A, B, C) and commercial portions (1, 2), the method comprising:

detecting one or more of the commercial portions of the data stream; and

replacing the detected one or more commercial portions with either more or less of the replacement commercial portions.